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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/477,278	01/04/2000	RAYMOND TAH-SHENG HSU	PA000090	8966

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Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

EXAMINER

PHAN, TRI H

ART UNIT	PAPER NUMBER
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2661

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DATE MAILED: 04/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,278

Applicant(s)

HSU ET AL.

Examiner

Tri H. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 5. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyakawa et al. (U.S.6,298,060).

- In regard to claims 1, 6, 11 and 16, Miyakawa discloses in Figs. 1, 10, 11A-B and 12 and in the respective portions of the specification that a system, method and means for providing a communication channel which transmits PPP packets and PPP related information being capable of realizing multi-functional access to a computer network ("*packet data network*") such as Internet or Intranet from a mobile terminal ("*mobile station*") that uses to set up the connection to a PPP access server or L2IA relay network ("*packet data services network*"). When changing the communication media due to the movement of a mobile terminal from the

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currently connected B1-unit using a communication medium ("*the first infrastructure element*") to the B2-unit using another communication medium ("*the second infrastructure element*"), such as handover or re-connection (For example see Col. 12, Line 36 through Col. 13, Line 47), the mobile terminal maintains the communication session by requesting the change of communication medium ("*transmitting message*") which includes Terminal ID, L2IA Relay ID, etc. ("*list of identifiers*") in the form of data unit RLD of the L2IA identifier (For example see Fig. 5; Col. 9, Lines 30-39) of the L2IA subscriber and the message includes the communication media state, i.e. flag, such as alive (For example see Col. 8, Lines 59-61; Col. 9, Lines 32-35) or dead state (For example see Col. 19, Lines 44-45) indicating the connection state of each Terminal ID, where each L2IA subscriber may have one or more Terminal Ids in correspondence to the communication media to be used ("*dormant connections*") as disclosed in Col. 9, Lines 11-19.

Miyakawa discloses the controller ("*processor*") for controlling the operation (See Figs. 6-7; Col. 9, Lines 65-66), memory ("*processor-readable medium*") for storing, maintaining and managing database (See Col. 9, Line 66 through Col. 10, Line 5) functions ("*instructions*") executing by the controller ("*executable by the processor*") in the PC or Workstation, etc. (For example see Col. 10, Lines 8-23), but fails to disclose the "*antenna*" in the system. However, in the system such as radio based communication media (See Col. 3, Lines 2-6), Cellular Digital Package Data 'CDPD' (See Col. 1, Lines 25-30) or in wireless (See Col. 7, Lines 48-51), it is obvious that the "*antenna*" is included in the mobile terminal.

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- Regarding claims 2, 7, 12 and 17, **Miyakawa** further discloses the L2IA-U-planes in the L2IA channel provide the “*PPP connections*” as specified in Col. 7, Lines 7-10; for transmitting PPP packets of the user and information related to these PPP packets.

- In regard to claims 3, 8, 13 and 18, **Miyakawa** further discloses the B1-unit (“*the first infrastructure element*”) and the B2-unit (“*the second infrastructure element*”), each B-unit acts as an access router (“*packet data service node*”) for directly transmitting or receiving with respect to the L2IA subscriber used by the user in the L2IA relay network (For example see Col. 10, Lines 33-50).

- Regarding claims 4, 9, 14 and 19, **Miyakawa** further discloses the identifiers comprise a unique Terminal ID (“*service reference identifiers*”) corresponding to a specific communication medium and identifying for each B-unit assigned within that specific communication medium in the L2IA relay network.

- In regard to claims 5, 10, 15 and 20, **Miyakawa** further discloses the message include the communication media state, i.e. flag (“*indicator*”), such as alive (For example see Col. 8, Lines 59-61; Col. 9, Lines 32-35) or dead state (For example see Col. 19, Lines 44-45) when performing the handover or re-connection function (For example see Col. 20, Lines 56-58) for connection set up (“*connection is dormant*”).

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Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rai et al. (U.S.6,393,482), **Lin et al.** (U.S.6,269,402), **Chang et al.** (U.S.6,487,406), **Kim et al.** (U.S.6,519,235) and **Ahopelto et al.** (U.S.5,970,059) are all cited to show devices and methods for improving the communication architectures in the data packet network, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan whose telephone number is (703)305-7444. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703)305-4703.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703)872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-3900.



Tri H. Phan
April 7, 2003



DANG TON
PRIMARY EXAMINER